ED 021 811 24 SP 001 584

By- Gentner, John
SUMMER INSTITUTE ON RESEARCH AND EVALUATION (JUNE 20-AUGUST 5, 1966).
Chicago Univ., Ill. Center for the Cooperative Study of Instruction.
Spons Agency- Office of Education (DHEW), Washington, D.C. Bureau of Research.
Bureau No- BR-6-1972
Pub Date 30 Sep 66
Grant- OEG-3-061972-1087
Note- 28p.
EDRS Price MF-$0.25 HC-$1.12
Descriptors- *EVALUATION TECHNIQUES, *INDIVIDUALIZED PROGRAMS, *INSTITUTES (TRAINING PROGRAMS), INSTRUCTIONAL MATERIALS, PROGRAM CONTENT, RESEARCH METHODOLOGY, RESEARCH PROPOSALS, *SCHOOL PERSONNEL
Identifiers- University of Chicago

A 6-week summer institute was conducted to train and improve the research and evaluation competencies of 19 public school and college teachers and administrators. Instruction was individualized on the basis of pretest information since the major objective was to help the participants develop programs of research to be implemented during the following school year. Small instructional packages lasting from 2 days to 3 weeks were presented to appropriate groups of participants. Each package consisted of units of instruction on research design, scientific method, sampling, operational definitions, test construction and analysis, analysis of commercial tests, interaction analysis, informal inventory techniques, rating scales, basic statistics, computer operation, computer programming, feedback, reproducibility, valicity, and new developments in education. Special materials available for instructio included University computer facâties; programmed materials and computer assisted instruction; plus tapes, overhead transparencies, and sound motion pictures recently develbped by the institute staff. A major strength of the program was the high level of interest displayed by the students. Posttest results recorded their improved skils, and their research proposals indicated that they were able to conceptualize a problem and put it into operational form. Publicity materials are appended. (JS)

BR-6-1972
PA-24

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

FINAL REPORT
GRANT NO. HEW-OEG-3-061972-1087 -24

TITLE OF PROGRAM

# SUMMER INSTITUTE ON RESEARCH AND EVALUATION

DATE OF REPORT

SEPTEMBER 30, 1966

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

SP001884
ED021811

SUMMER INSTITUTE ON RESEARCH AND EVALUATION

GRANT NO.

HEW-OEG-3-061972-1087

PROGRAM DIRECTOR

JOHN GINTHER

INSTRUCTIONAL DATES OF PROGRAM

JUNE 27 to AUGUST 5, 1966

The training program reported herein was conducted pursuant to a grant from the Office of Education, U.S. Department of Health, Education, and Welfare. Grantees undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment of the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

THE UNIVERSITY OF CHICAGO

CHICAGO, ILLINOIS

# REPORT ON SUMMER INSTITUTE

## ORIENTATION OF PROGRAM

A Summer Institute on Research and Evaluation was conducted by the staff of the Center for the Cooperative Study of Instruction at The University of Chicago between June 27 and August 5 for the purpose of training and improving the research and evaluation competencies of the participants. These competencies were focused on plans intended to improve instruction in the schools.

Applicants were accepted on the basis of their qualifications and upon the acceptance of clearly identified research ideas. Most of the applicants were selected from Chicago and the suburbs. This was intentional since their proximity to the Center made it possible to plan a continuing relationship following the Institute.

Members of the Institute staff were: John Ginther, Ph.D., Associate Professor, The University of Chicago, Director, Center for the Cooperative Study of Instruction, Robert Rippey, Ph.D., Assistant Professor, The University of Chicago, Associate Director, Center for the Cooperative Study of Instruction and George Madaus, Ph.D., Research Associate, The University of Chicago.

The participants are listed on the following table.

| NAME | SCHOOL | DEGREE | POSITION |
|---|---|---|---|
| Anthony Allen | Kelly High | B.A. | English Teacher |
| Loren Anderson | Glenbard High | M.S. | Science Teacher |
| Wade Arends | Southeast Junior College | M.A. | Assistant Professor |
| Robert Cahill | Boston College | M.A. | Educational Research |
| Edward Dixon | Chicago City College | M.A. | Co-Director, Project for Culturally Disadvantaged |
| Joseph Foley | State College at Boston | M.A. | English Teacher |
| Alfred Hecht | Glenbard High | M.A. | Curriculum Research |
| Judith Judy | Thornridge High | B.S. | Mathematics Teacher |
| Carol Kassanitz | Elementary District 126 | B.Ed. | English Teacher |
| Harry Kone | Chicago City College | M.A. | Co-Director, Project for Culturally Disadvantaged |
| William Larke | Worth Elementary School | B.A. | English Teacher |

| NAME | SCHOOL | DEGREE | POSITION |
|---|---|---|---|
| Randolph Marsh | Eisenhower High | B.A. | Biology Teacher |
| Louis Madon | Elementary District 126 | B.Ed. | Science Teacher |
| Thomas McMahon | Niles West High | M.A. | English Teacher |
| Virgil Mette | Eisenhower High | B.S. | Biology Teacher |
| Jerry Smith | Niles North High | A.B. | Mathematics Teacher |
| Peter Pereira | New Trier High | A.M.T. | Mathematics Teacher |
| William Shimizu | Park Forest Elementary | M.A. | Principal |
| Lorraine Wisdom | Atwood Heights Elementary | B.Ed. | English Teacher |

The main objective of the program was to help the participants develop programs of research which would be implemented during the year following the conclusion of the Institute. At the same time, each individual was to be given training in recent developments in research technology. Finally, through course work, independent study and personal consultation with the Center staff, each individual was expected to pursue a course of study which would raise his level of research ability.

The three staff members attempted to individualize instruction for each of the participants on the basis of pre-test information, and on the basis of their proposed plans for research. Participants worked on their projects, and small instructional packages lasting from two days to approximately three weeks were presented to appropriate groups of participants. These packages consisted of units of instruction on research design, scientific method, sampling, operational definitions, test construction and analysis, analysis of commercial tests, inter-action analysis, informal inventory techniques, rating scales, basic statistics, computer operation, computer programming, feedback, reproducibility, validity, and new developments in evaluation.

## DESCRIPTION OF THE PROGRAM

Extensive pre and post evaluation of subjects was employed. A sample of instruments used may be found in Appendix A of the report. Each subject was given a questionnaire and a half hour interview prior to the opening of the Institute. During this interview, several informal oral tests were administered. In light of the questionnaire and the informal tests, a program was constructed for each student. A summary of student needs and interests suggested that units lasting from two days to three weeks should be offered on the following topics:

1. Research Design
2. Scientific Method
3. Sampling
4. Operational Definitions

5. Test Construction and Analysis

6. Analysis of Commercial Tests

7. Inter-action Analysis

8. Informal Inventorying

9. Rating Scales

10. Basic Statistics Through 1 Way ANOVA

11. IBM 1620 Operation and Program Library

12. Advanced Analysis of Variance and Other Topics

13. FORTRAN

14. Feedback

15. Reproducibility

16. New Developments in Evaluation

17. Validity

18. Writing Plans and Reports

19. Materials Selection and Development

The two basic criteria of success for the Institute would be:

1. Did the participant actually conduct a research project to completion during the year following the Institute?

2. Did the participant continue to develop his abilities as a researcher?

To accomplish the objectives, a new schedule of instruction was made out each Friday afternoon at the conclusion of the homeroom meeting. During these homeroom meetings groups of approximately six participants would meet with each of the Institute staff members. The resulting discussions would suggest the structure for the following week's program, and the sequence of topics to be presented. Some of the topics were offered only once. Others were repeated as participants became more sophisticated and as their needs

became clearer to them.

In addition to the regular class sessions, the Institute provided the opportunity for nine individual conferences with staff members each day, homeroom, and paper discussion sections. Among the papers discussed were papers by Platt, Chamberlin, and Nagle on scientific method; papers by Guba on research design; and papers by Cronbach, Scriven, Tyler, Stake, and Atkin on evaluation.

The preparation of plans for research to be pursued during the coming year amounted to a major focus of the Institute. These plans are available in the files of the Center.

## EVALUATION OF THE PROGRAM

### OBJECTIVES

Due to the individualized nature of the program, the objectives seemed suitable for the participants. Each participant did develop a plan for research. By July 1, 1967 we will know more fully whether the plans were implemented. However, if quality of plans has predictive validity for completion of plans, the objectives should be fulfilled in large measure.

### CONTENT

The content seemed appropriate for the participants. Some of the papers planned for discussion were too difficult during the early weeks of the Institute. Occasionally, as in the initial run of any educational venture, there was a scramble to find the right reference or to see that it was available. More planning time should be allotted for these activities, but in a flexible program one cannot predict the entire range of demands which will be generated.

Perhaps too much time was spent on statistics for some of the participants. A few felt that they would rather not work with data processing machines, but we think the experience will be profitable.

## STAFF

Two full-time and one half-time staff members served the group making the ratio of participants to staff approximately seven participants for each staff member. This ratio was almost too heavy due to the intensive nature of the program. Were we to hold another Institute we would involve consultants. This would reduce the staff burden somewhat.

## TRAINEES

Trainees were selected on the basis of the clarity of formulation of their goals. This was determined in individual interviews which were held with each of the Institute participants approximately two weeks before the opening of the Institute. Considerable pre-testing was done to make certain that the applicants were capable of carrying on the work of the Institute. However, due to the individualized nature of the instruction, the pre-testing was more helpful in planning the individual's program than it was in screening out participants. Since the number of applications we received was not as large as we would have liked, we attempted to take as many of the applicants as we could. Seventeen of the nineteen participants were from the Chicago suburban area. Two of them were from the Boston area. Sixteen of the participants were commuters.

## ORGANIZATION

Participants were required to be in attendance from 9:00 until 4:00 each day for the six weeks of the Summer Institute. This requirement generated no complaints. The participants could vary their routine daily by electing to work or not in the Statistics Laboratory or the Curriculum Center. They could also elect to have an individual conference or not. Three classrooms were available for use for instruction and small group meetings. In addition, the Educational Statistics Laboratory at the University was used regularly by the Institute personnel one hour each day, and was available and used at other times during the day at

the convenience of the participants. Housing was no problem for the three non-commuters. One participant lived at International House and two participants were able to rent houses near the University.

## BUDGET

The dependency allowance was considerably more than we needed, since most of the participants were local. Since participants with dependents were not entitled to this allowance, it seems that a better provision should be made for travel. Some of the participants traveled seventy miles per day to come to the Institute, and allowing only a single round trip for them, and then not allowing a dependency allowance seemed a little harsh.

For this type of program, it also seems that it should be possible to budget tuition costs.

## MAJOR STRENGTHS

One major strength of the program was the high level of interest displayed by the students. After going through our intensive program evaluation, only those students came to the Institute who definitely were interested in doing research. The capability and experience of the staff in working with the kind of participants who attended the Institute was also a unique feature of the program. Since the Center has had several years experience in working with classroom teachers on research projects and has conducted regular seminars with these people, we were neither naive with respect to the difficulties which we might encounter, nor did we have stereotypes of teacher-behavior which would have caused us to underestimate the real potential of the delightful people with whom we were to work.

The extensive computation facilities of the University made it possible to introduce the participants to a rather sophisticated array of statistical techniques and research designs. For those who wanted to learn computer programming, and there were seven of the participants who became programmers during the Institute, programmed or self-instructional materials were used as

was computer assisted instruction.

The faculty had a wide range of competencies and interests, and the availability of recent research findings by the faculty helped to stimulate the interest of the participants in research in general, and in specific researchable questions about instruction.

New materials of instruction were developed especially for the Institute. In addition, tapes, overhead transparencies, and sound motion pictures developed in connection with recent research efforts of the Institute staff were used as part of the instructional program.

We thought the wide range of constant choices would be appealing to the participants and would prove pedagogically sound. The consistently high *esprit de corps* tended to support our beliefs.

## MAJOR DIFFICULTIES

The major difficulty of the Institute was related to the late date at which we were permitted to announce the awarding of the grant. This made it extremely difficult to get the number and quality of participants we would have preferred.

Because of our inability to make commitments even during the first week of June, we felt obliged to discourage inquiries which arrived from distant parts of the country. Further, most able school personnel make decisions about summer opportunities by April and we felt very fortunate in attracting as many strong candidates as we did in June.

A second major difficulty was the discontent stirred by the revision of the provision for dependency allowance. In a major metropolitan area we are bound to draw heavily from persons within commuting distance. The dependency allowance was unavailable to commuters. Further, they received reimbursement for only one round trip to the campus although they traveled 29 times.

## OVERALL EVALUATION OF THE PROGRAM

Our overall evaluation of the program is quite favorable. Four of the participants in the Institute made major career changes and committed themselves to graduate study in educational research, as a result of our Institute. We attribute this change to the Institute because this is what the participants told us was responsible for their decisions. As one of the participants stated in a letter, "This is just a note to thank you for the interest in educational research you invoked in me this summer. But how can I thank you for a Summer Institute that has changed my entire life?" This letter was received from a participant, a high school English teacher of great capability, who late in the summer resigned from his high school teaching position and obtained a fellowship to pursue doctoral work in educational research. In addition to the four members of the Institute who made major career changes and who are entering doctoral programs in educational research, several of the participants in the Institute have taken new positions, either in their own districts or in other school districts; positions which have given them additional responsibilities for research. One of the participants, for example, moved from a teaching position in social science, in a Chicago Junior College, to a position as coordinator of research under Title I in a large curriculum cooperative involving thirty-five school districts, just south of Chicago.

Each member of the Institute produced an acceptable plan for research. We will not know whether each of these plans was pursued in detail until the end of the next year. However, we plan to stay in contact with our participants.

Pre-testing and post-testing of the students indicated several things. First, all of the participants showed an increase in their reading comprehension of Kerlinger's book, Foundations of Behavioral Research. Each participant showed substantial improvement in his understanding of basic statistical concepts on the basis of an oral test given before and after the Institute. A considerable increase in sophistication, both in writing plans for research and in discussing them in small group discussions, was observed by the staff.

The research proposals themselves indicated that the participants were able to conceptualize a problem

and put it into an operational form. These papers which they produced as a key assignment in the Institute are on file at the Center for the Cooperative Study of Instruction.

During the third week of the Institute we were favored by a visit from Richard Dershimer, Executive Director of the American Educational Research Association. Mr. Dershimer attended some of the Institute sessions and met with a group of the participants. His comments to us later were quite favorable and he seemed surprised that a group of essentially instructional personnel were as sophisticated as they were in thinking about research.

Content tests were administered during the Institute on several occasions. These satisfied us that we were achieving some of the goals sampled by the test items. In addition an inventory of topics was given before and after the Institute. A copy of this inventory is given in Appendix A. It indicated that participants considered that they had made gains in their understanding of the following concepts: A complete analysis of their responses may be found in the files of the Center. The item responses on the inventory ranged from a low of one to a high of five.

PRE AND POST INSTITUTE QUESTIONNAIRE

RESPONSE SUMMARY

| Concept | Mean Pre | Mean Post |
|---|---|---|
| 1. Randomization | 2.7 | 3.8 |
| 2. Chi Square | 2.5 | 3.7 |
| 3. Analysis of Variance | 2.4 | 3.5 |
| 4. Analysis of Covariance | 2.1 | 3.1 |
| 5. Multivariate Analysis | 1.9 | 2.5 |
| 6. Item Analysis | 2.9 | 3.4 |
| 7. Reliability | 3.3 | 3.7 |
| 8. Validity | 3.3 | 3.8 |

| Concept | Mean Pre | Mean Post |
|---|---|---|
| 9. Construct Validity | 2.2 | 3.5 |
| 10. Bloom Taxonomy | 2.2 | 3.7 |
| 11. FORTRAN | 1.9 | 2.6 |
| 12. Operational Definitions | 2.5 | 3.9 |
| 13. Criterion Reference | 1.4 | 2.9 |
| 14. Informal Inventory | 1.8 | 2.5 |
| 15. Multiple Regression | 2.0 | 2.8 |
| 16. Point Biserial Correlation | 1.6 | 2.4 |
| 17. Tyler Rationale | 1.8 | 2.6 |
| 18. Crossed Design | 1.3 | 2.7 |
| 19. Nested Design | 1.2 | 2.3 |
| 20. Quasi Experimental Design | 1.2 | 2.8 |
| 21. Time Series | 1.5 | 2.3 |
| 22. KR 20 | 1.5 | 2.3 |
| 23. Item Banks | 2.0 | 3.4 |
| 24. Independent Variable | 2.9 | 4.0 |
| 25. Hypothesis | 3.1 | 4.1 |
| 26. Intervening Variable | 2.2 | 3.5 |
| 27. Stereopath | 1.5 | 2.5 |
| 28. Correlated Groups | 2.4 | 3.0 |
| 29. Standard Error of Estimate | 2.6 | 3.4 |
| 30. Within Cells Variance | 2.0 | 3.5 |
| 31. Behavioral Objective | 2.6 | 4.1 |

| Concept | Mean Pre | Mean Post |
|---|---|---|
| 32. Affective Domain | 2.5 | 3.6 |
| 33. Predictive Validity | 2.7 | 3.4 |
| 34. Correlational Study | 2.8 | 3.5 |
| 35. Control Group | 3.2 | 3.8 |
| 36. Sequential Item Test | 2.3 | 3.0 |
| 37. Formative Evaluation | 1.9 | 3.0 |
| 38. Summative Evaluation | 1.9 | 3.1 |

Most of the items which did not show significant increases were not taught, or were meaningless terms used as a check on the response validity. The Corsi Curtin Test and the term TERMIT received post scores of 1.11 and 1.17 respectively which speaks well of the honesty of the participants.

## RECOMMENDATIONS RELATED TO THE USOE ADMINISTRATION OF THE EDUCATIONAL RESEARCH TRAINING PROGRAM

In general we are favorably impressed by the goals and procedures established for the Educational Research Training Program. One serious difficulty was the fact that we simply did not have sufficient time to sample and select from among the persons we know about. The late date at which we received authorization to announce receipt of the grant was a matter of extreme concern for us.

# PROGRAM REPORTS

## PUBLICITY

The proposed program was described in the March 1965 meeting of the Center's Seminar for Research

Directors. Announcements were also mailed to each of the schools on our mailing list. See Appendix A. This means direct mail contact with approximately 100 persons in the Chicago suburban area. In addition, personal contacts were made with persons whom we felt might be interested in participating in the program. A severe restriction which we encountered in connection with our publicity was the fact that we were instructed by the Office of Education not to announce that we had received the grant. Therefore any mention of stipends or other support could not be given to the applicants until less than one month before the opening of the Institute. Because of this restriction it was very difficult to encourage and obtain applications from those persons who might have been best qualified for this Institute.

APPLICATION SUMMARY

| | | |
|---|---|---|
| a. | Approximate number of inquiries from prospective trainees (letter or conversation) | 40 |
| b. | Number of completed applications received | 26 |
| c. | Number of first rank applications (applicants who are well-qualified whether or not they were offered admission) | 10 |
| d. | How many applicants were offered admission | 20 |

TRAINEE SUMMARY

| | | |
|---|---|---|
| a. | Number of trainees initially accepted in program | 20 |
| | Number of trainees enrolled at the beginning of program | 19 |
| | Number of trainees who completed program | 19 |

b. Categorization of trainees

| | | |
|---|---|---|
| (1) | Number of trainees who principally are elementary or secondary public school teachers | 12 |
| (2) | Number of trainees who are principally local public school administrators or supervisors | 2 |
| (3) | Number of trainees from state education groups | 0 |
| (4) | Number of trainees from colleges or universities, junior colleges, research bureaus, etc. Junior Colleges | 3 |
| | Universities | 2 |

PROGRAM DIRECTOR'S ATTENDANCE

| | | |
|---|---|---|
| a. | What was the number of instructional days for the program? | 29 |
| b. | What was the percent of days the director was present? | 100 |

FINANCIAL SUMMARY

| | | Budgeted | Expended or Committed |
|---|---|---|---|
| a. | Trainee Support | | |
| (1) | Stipends | $11,250.00 | $ 8,550.00 |
| (2) | Dependency Allowance | 5,670.00 | 540.00 |
| (3) | Travel | 500.00 | 437.56 |
| b. | Direct Costs | | |
| (1) | Personnel | 5,174.00 | 5,879.44 |

| | | Budgeted | Expended or Committed |
|---|---|---|---|
| (2) | Supplies | 200.00 | 491.53 |
| (3) | Equipment | - | - |
| (4) | Travel | - | - |
| (5) | Other | 300.00 | 440.30 |
| c. | Indirect Costs | 1,848.00 | 1,248.76 |
| | TOTAL | $24,942.00 | $17,587.59 |

APPENDIX A.

# ANNOUNCEMENT OF INSTITUTE, APPLICATION FORM, AND PRELIMINARY EVALUATION FORM

## SUMMER RESEARCH INSTITUTE

## SPONSORED BY

## CENTER FOR THE COOPERATIVE STUDY OF INSTRUCTION

## THE UNIVERSITY OF CHICAGO

The Center for the Cooperative Study of Instruction is pleased to announce that it has received a grant which will enable it to conduct a Summer Institute in Research and Evaluation. The Summer Institute will last for six weeks, from June 27 to August 5, 1966 and will be given in lieu of the two workshops previously announced by the Center. Projects of particular interest to schools from which the applicants will be drawn will form the core of emphasis of the program. A secondary focus of the Institute will be the study of numerous evaluation technologies and the design of experiments. The following topics are planned for coverage during the Institute:

1. Specifying objectives
2. Technologies of evaluation
3. Reliability and validity
4. Interpretation of data
5. Hypotheses and operational definitions
6. Replicability
7. Experimental design
8. Controls and procedural validity checks
9. Analysis of findings

## STIPENDS

Applicants selected for this Institute will receive a stipend of $75.00 per week for the six weeks of the Institute as well as a dependency allowance of $15.00 a week for each dependent. In addition to this all tuition expenses for the workshop will be supported by the grant. Participants will be able to earn credit for two courses equivalent to 6 2/3 semester hours of credit for their participation.

## ACTIVITIES OF THE SUMMER INSTITUTE

Applicants will be expected to come to the Institute with a proposal for research or evaluation clearly identified. A brief description of the proposal of the applicant will constitute a portion of the application and applicants will be selected on the basis of several criteria, one of which will be the clarity of purpose of the applicant. The workshop hopes to accomplish two basic objectives. The primary objective of the Summer Institute is to assist the applicant in designing and implementing the investigation which he has formulated. The workshop also will develop in the applicant certain basic competencies in the area of evaluation, research design and data analysis, which will make it possible for him to pursue these activities independently in his own school. Institute meetings will be conducted from 9:00 to 4:00 each weekday. In the morning from 9:00 to 11:00 participants will receive formal instruction and work on projects of common interest. Students may also elect to do independent work in the library, the curriculum laboratory or the computer laboratory during this time. In addition participation in one optional class in evaluation or statistics can be worked out on an individual basis where this is desired. From 11:00 until 12:00 each weekday, individual conferences will be arranged with staff members of the Center. From 1:00 to 4:00 in the afternoon the formal instruction, group work, and project planning will be continued. No formal activities have been scheduled for evenings or weekends during this Institute, although the full range of cultural activities of the University will be open to participants. Although most participants are expected to be commuters, housing facilities may be arranged for in the event that participants wish to live on campus during the Institute.

The Institute will be structured to maximize individual work. This means that the instruction and the type of work done by the individual will depend to some extent on his background. Thus the workshop can accept persons ranging from minimal backgrounds in research and evaluation to those of average sophistication in this area. In the event that you have any further questions about this Summer Institute, you may write or phone either Mr. John Ginther or Mr. Robert Rippey, Center for the Cooperative Study of Instruction, The University of Chicago, 5835 Kimbark, Chicago, Illinois 60637. The telephone number of the Center is MI 3-0800, Extension 3812 or 3839.

## INSTRUCTIONS FOR APPLICATION

Applicants should send their applications to Mr. John Ginther, Center for the Cooperative Study of Instruction, Judd Hall, 5835 S. Kimbark, Chicago, Illinois before May 1, 1966*. Applications received before that date will be acted upon as soon as possible, and it is expected that announcement of stipends will be made before May 15. A transcript of credits from the institution from which the applicant has received his highest degree would be desirable, though not required. It is expected that most applicants will be either primary or secondary school administrators, research directors, curriculum coordinators or teachers who have a strong interest in research and who have particular questions which they intend to explore during the coming year. It is possible that a few applicants who are college teachers may be accepted for this program on the basis of interesting research proposals.

*This document was prepared in anticipation of the grant. However, it was not circulated until authorization was received from the Office of Education. This was later than the date of May 1 in the text.

APPLICATION FOR PARTICIPATION IN

SUMMER RESEARCH INSTITUTE

CENTER FOR THE COOPERATIVE STUDY OF INSTRUCTION

The University of Chicago

June 27 - August 5, 1966

Name_____

Home Address_____

Current School Address_____

Home Phone_____ School Phone_____

Married Yes No

What is the number of dependents which you claim on your income tax return? This should not include yourself.

Will you commute or live on campus during the Institute? (circle one)

Do you need additional information about university housing? Yes No

Will you be teaching at the school listed above during the year 1966-67? Yes No

If the answer to the above question is No, please give your school address and phone number for the year 1966-67.

Address_____

Phone_____

Please describe your assignment for the coming year.

Please list below any courses in evaluation, statistics, or research design which you have taken previously.

| Name of course | Year taken |
| --- | --- |
| | |

Please list your degrees below.

| Degree | Area of specialisation | Institution | Year |
| --- | --- | --- | --- |
| | | | |

NAME_____

The following is a list of topics which might be included in the Center for the Cooperative Study of Instruction's Summer programs in research and evaluation. Next to each topic, please place the number which corresponds most closely to your feeling about this topic.

1. Never heard of it.
2. Heard of it but that is about all.
3. Studied it but would like to know more about it.
4. Have used it and feel familiar with it.
5. Am so experienced with it that further discussion seems a waste of time.

1. Randomization_____
2. Chi-Square_____
3. Analysis of Variance_____
4. Analysis of Covariance_____
5. Multivariate Analysis_____
6. The Varimax Criterion_____
7. Item Analysis_____
8. Reliability_____
9. Validity_____
10. Differential Diagnosis_____
11. Guttman Scale_____
12. Construct Validity_____
13. Bloom Taxonomy_____
14. Simulation_____
15. Item Sampling_____
16. FORTRAN_____
17. COMIT_____
18. Programmed Instruction_____
19. Latency_____
20. Kolmogoroff-Smirnoff Test_____
21. Corsi-Curtis Test_____
22. Operational Definitions_____
23. Criterion Referenced Examination_____
24. Informal Inventory Technique_____
25. Multiple Regression_____
26. Beta Weight_____
27. Point Bi-serial Correlation_____
28. Tyler Rationale_____

29. Crossed Design_____
30. Nested Design_____
31. Quasi Experimental Design_____
32. Time Series Analysis_____
33. K.R. 20_____
34. Spearman Brown Formula_____
35. Correction for Attenuation_____
36. Item Banks_____
37. Extinction_____
38. Independent Variable_____
39. Hypothesis_____
40. Intervening Variable_____
41. Orthogonal Contrast_____
42. Contrast of Effects_____
43. TERMIT_____
44. Leveler_____
45. Stereopath_____
46. Dogmatism_____
47. Correlated Groups_____
48. Standard Error of Estimate_____
49. Within Cells Variance_____
50. Behavioral Objective_____
51. Affective Domain_____
52. Predictive Validity_____
53. Correlati .al Study_____
54. Control Group_____
55. Sequential Item Test_____
56. Formative Evaluation_____
57. Summative Evaluation_____

NAME_____

1. If you would like the summer program to take up any of the above topics, please draw a circle around it. If you would like the summer program to spend some time on any topic not on the above list, please describe or list the topic in the space below

2. What educational problem are you interested in solving or evaluating as a result of your summer work?

3. With respect to the above question, what variables are you especially interested in measuring? Do you have any ideas for measuring these variables? Please list any instruments or techniques which you have in mind.

4. Please ask the superintendent of your district or your director of instruction to submit a letter of recommendation. In this letter, he should include a statement of his knowledge of your intended study, as well as a statement of his support.